

An isolated DNA

--11 (amended). A DNA molecule comprising the nucleotide sequence coding for [the TNF Binding Protein TBP-II of claim 1 or to a protein homolog therewith] ~~a protein having an amino acid sequence substantially corresponding to naturally occurring~~ ^{consisting of} ~~Tumor Necrosis Factor (TNF) Binding Protein II,~~ herein designated TBP-II, said TBP-II including the amino acid sequence: Thr-Pro-Tyr-Ala-Pro-Glu-Pro-Gly-Ser-Thr, said protein having the ability to inhibit the cytotoxic effect of TNF and/or to maintain the prolonged beneficial effects of TNF.

12 (amended). A replicable expression vehicle comprising the DNA molecule of claim 11 and capable, in a transformant host cell, of expressing [the TNF Binding Protein TBP-II of claim 1] said protein.

14 (amended). A process for producing ~~a protein having an amino acid sequence, substantially corresponding to~~ ^{of} TNF Binding Protein TBP-II, comprising the steps of: (a) culturing a transformant host cell according to claim 13 in a suitable culture medium, and (b) isolating said [TNF Binding Protein TBP-II] protein.

Insert new claims 33-45 as follows:

--33. A DNA molecule in accordance with claim 11, wherein said protein consists of TBP-II.

--34. A DNA molecule in accordance with claim 33, wherein said protein consists of human TBP-II. ¹¹

35. A DNA molecule comprising the nucleotide sequence naturally occurring ^{an isolated DNA} ~~human~~ coding for a Tumor Necrosis Factor (TNF) binding protein (TBPII) having the following characteristics:

Sub H3

i. an N-terminal amino acid sequence: Xaa-Pro-Tyr-Ala-Pro-Glu-Pro-Gly-Ser-Thr, where Xaa consists of the following amino acid sequences: Thr, Val-Ala-Phe-Gln, Thr-, Ala-Glu-Val-Ala-Phe-Thr and Phe-Thr; and

ii. the ability to inhibit the cytotoxic effect of TNF- α on murine A9 cells.

An isolated DNA naturally occurring human

36. A DNA molecule comprising the nucleotide sequence coding for a Tumor Necrosis Factor (TNF) binding protein (TBPII) having the following characteristics:

Sub H3 E

i. an N-terminal amino acid sequence: Xaa-Pro-Tyr-Ala-Pro-Glu-Pro-Gly-Ser-Thr, where Xaa consists of the following amino acid sequences: Thr, Val-Ala-Phe-Gln, Thr-, Ala-Glu-Val-Ala-Phe-Thr and Phe-Thr;

ii. the ability to inhibit the cytotoxic effect of TNF- α on murine A9 cells; and

iii. a molecular weight of about 30kd in reducing SDS-PAGE analysis.

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37. A replicable expression vehicle comprising the DNA molecule of claim 35 and capable, in a transformant host cell, of expressing said protein.

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38. A host cell selected from the group consisting of a prokaryotic and a eukaryotic cell transformed with the replicable expression vehicle of claim 37.

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39. A process for producing a protein having an amino acid sequence substantially corresponding to TNF Binding Protein TBPII, comprising the steps of: (a) culturing a transformant host

cell according to claim 38 in a suitable culture medium, and (b) isolating said protein.

40. A replicable expression vehicle comprising the DNA molecule of claim 34 and capable, in a transformant host cell, of expressing said protein.

41. A host cell selected from *the group consisting of* a prokaryotic and a eukaryotic cell transformed with the replicable expression vehicle of claim 40.

42. A process for producing a protein having *an* amino acid sequence *of*, *substantially corresponding to* TNF Binding Protein TBP-II, comprising the steps of: (a) culturing a transformant host cell according to claim 41 in a suitable culture medium, and (b) isolating said protein.

43. A replicable expression vehicle comprising the DNA molecule of claim 35 and capable, in a transformant host cell, of expressing said protein.

44. A host cell selected from *the group consisting of* a prokaryotic and a eukaryotic cell transformed with the replicable expression vehicle of claim 43.

45. A process for producing a protein having *an* amino acid sequence *of*, *substantially corresponding to* TNF Binding Protein TBP-II, comprising the steps of: (a) culturing a transformant host cell according to claim 44 in a suitable culture medium, and (b) isolating said protein.--